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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,202	03/25/2005	Hiroshi Kage	266814US2PCT	8938

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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TORRES, JOSE

ART UNIT	PAPER NUMBER
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2624

NOTIFICATION DATE	DELIVERY MODE
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04/03/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/529,202	<b>Applicant(s)</b> KAGE ET AL.	
	<b>Examiner</b> JOSE M. TORRES	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 4 and 6 is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Comments*

1. The Amendment – After Non-Final Rejection filed on January 8, 2009 has been entered and made of record.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Sekine et al. (U.S. Pat. No. 6,370,330).

Re claims 1, 3 and 5: Sekine et al. disclose an image processor/method/recording media encoded with an image compensation program implemented on an image capture device (FIG. 1, "Operation Part **10**", Col. 11 line 65 through Col. 12 line 8), comprising: an image input unit/step (FIG. 20, "Image Sensor **316**") configured to receive a plurality of two-dimensional images, including a first image and a second image (Col. 31 line 63 through Col. 32 line 26); a motion calculator/step (FIG. 20, "Area Determining Circuit **338**")

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configured to select a predetermined motion detecting area ("the blocks which are within the threshold") for each of the first image ("previous image plane") and the second image ("currently obtained image plane") received by the image input unit/step, and configured to calculate a motion vector ("movement vector") between the first image and the second image based on projective data ("histogram") that is acquired by computing in a predetermined direction pixel values in each of the predetermined motion detecting areas (Col. 32 lines 27-43); a displacement calculator/step (FIG. 20, "Image Shake Quantity Detecting Circuit **340**") configured to calculate and image correlativity ("correlation computing") between a basic image area of the first image and each of a plurality of areas of the second image ("on" area), the areas of the second image being along the direction of the motion vector, and configured to calculate and amount of pixel displacement ("moving quantity"), based on the image correlativity (Col. 32 lines 44-56 and Col. 34 lines 4-18); and an image output unit/step configured (FIG. 20, "Actuator **342**") to cut away an area from a camera-shake compensation area designated in the second image ("lessen the movement of the image plane sue to shake of a camera."), based on the amount of pixel displacement, and configured to output to a display the cut away area as an image output area of the second image (It should be noted that the TV signal outputted is inherently displayed on a conventional TV set. Col. 34 lines 4-18).

***Allowable Subject Matter***

4. Claims 2, 6 and 4 are allowed.

For a statement of reasons for indicating allowable subject matter refer to the Office Action mailed on December 19, 2007.

***Response to Arguments***

***Claim Rejections – 35 USC § 112***

5. Claims 4 and 6 have been amended in order particularly point out and distinctly claim the subject matter which applicant regards as the invention. Therefore, the rejections have been withdrawn.

***Claim Rejections – 35 USC § 101***

6. Claims 3 and 4 have been amended in order to define statutory subject matter. Therefore, the rejections have been withdrawn.

***Claim Rejections – 35 USC § 102***

7. With respect to claims 1, 3 and 5, Applicant's arguments have been fully considered but they are not persuasive.

With respect to claim 1, Applicant respectfully submits that "the blocks which are within threshold" in Sekine et al. do not correspond with the claimed predetermined motion detecting area (Remarks, Page 10 lines 22-24). Examiner respectfully disagrees.

Sekine et al. disclose a Switch SW1 and a Switch SW2, which are provided for selection of an image shake detecting and compensating action, and for selection of one of 4 modes. The mode selection selects different image detection areas for purposes of image shake detection and compensation action (Col. 9 lines 24-35).

However, it should be noted that selection switches SW1 and SW2 can be made by the operator and the mode setting operation can be performed automatically automatically (Col. 9 line 66 through Col. 10 line 3). Therefore, the blocks that are within a predetermined threshold comprises blocks or regions that have been predetermined by selection switches SW1 and SW2, wherein the object region or background region are located.

Further, Applicants respectfully submit that the “movement vector” in Sekine et al. does not correspond with the claimed “motion vector” as the movement vector in Sekine et al. is not calculated based on projective data that is acquired by computing in a predetermined direction pixel values in each of the predetermined motion detecting areas (Remarks, Page 11 lines 3-6). Examiner respectfully disagrees.

Sekine et al. disclose the calculation of movement vector between image blocks of a current image and a delayed image, wherein the blocks are set as discussed above. The movement vector is based on the change occurring in each of the divided blocks, and ranked according to the sizes of the X and Y components, which at the same time its size is determined using projective data such as that shown with respect to Figure 21(c). The histograms generated corresponds to the size and frequency of vector values in X and Y directions. The size and frequency of the vector values are at

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the same time based on the luminance signal Y at the preselected blocks (Col. 31 line 50 through Col. 32 line 43). Therefore, Sekine et al. disclose at least a motion vector that is calculated based on the luminance information Y of the current and delayed frames, which have been divided into blocks of predetermined areas.

Furthermore, Applicant respectfully submits that Sekine et al. is silent regarding calculating an image correlativity between a basic image area of the first image and each of a plurality of areas of the second image, the areas of the second image being along the direction of the motion vector. Also, that Sekine et al. does not teach or suggest “a displacement calculator configured to calculate an image correlativity between a basic image area of the first image and each of a plurality of areas of the second image, the areas of the second image being along the direction of the motion vector, and configured to calculate an amount of pixel displacement, based on the image correlativity”, as recited in Claim 1 (Remarks, Page 11 lines 7-14). Examiner respectfully disagrees.

Sekine et al. teaches a circuit **340** that comprises a correlation circuit which perform a point matching action. The moving quantity, which ultimately moves the prism **1** for example, is based on image correlation. This image correction being performed in the image shake detecting area set for the first image and the plurality of areas in the second image being the areas satisfying the threshold rule, as to where the motion occurs and in what direction. For a simple correlation refer to Figures 10(a) to 10(c) and to Col. 17 lines 39-45 (Col. 32 lines 44-56 and Col. 34 lines 4-18). Therefore,

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the moving quantity represents the amount of movement for the prism's apex angle, ultimately reflecting the image being recorded pixel wise.

Moreover, Applicants respectfully submit that Sekine et al. is silent regarding cutting away an area from a camera-shake compensation area designated in a second frame, the area being produced by displacing an image output area in the camera-shake compensation area and then outputting such an image (Remarks, Page 11 lines 15-25). Examiner respectfully disagrees.

As discussed above as how the moving quantity of Sekine et al. is calculated, once the variable apex angle of the prism is set to account for the shake detected, the TV signal outputted does not contain that part of the image which now falls out of the sensing plane of the sensor. It should be noted that CCD sensor as described in Col. 8 line 52 through Col. 9, are constructed in a matrix shape representing pixels. Therefore, the output image (second image) does not contain the cutted away area that is not being imaged by the sensors.

Therefore, the rejection is maintained.

With respect to claims 3 and 4, Applicant's arguments are no different from those previously presented with respect to claim 1 above (Remarks, Page 12 lines 12-16), and already addressed above.

Therefore, the rejections are maintained.



***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSE M. TORRES whose telephone number is (571)270-1356. The examiner can normally be reached on M-F: 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on 571-272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jose M. Torres/  
03/30/2009  
Examiner, Art Unit 2624

/Brian P. Werner/  
Supervisory Patent Examiner, Art Unit 2624